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SHOP COFFEE GRINDER # 4
COFFEE GRINDER # 1 and # 1PS

USER AND MAINTENANCE MANUAL

IMPORTANT: documents included in this manual to be kept:

- **"CE" COMPLIANCE DECLARATION**
- **WARRANTY CERTIFICATE**

Model # 1

Model # PS

Model # 4

Coffee grinders - Fruit juicers - Mixers - Blenders - Drinks dispensers - Planetary mixers
Cheese graters - Ice crushers - Mincers - Vegetable slicers – Dough mixer
Moulins à café - Presse-fruits - Mixers - Blenders - Distributeurs de boissons - Batteurs mélangeurs - Pétrin - Râpes à fromage - Broyeurs à glaçons - Hache-viande - Coupe-légumes

MODELES DEPOSES FRANCE ET INTERNATIONAL
INTERNATIONALLY PATENTED MODELS

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"CE" COMPLIANCE DECLARATION

THE MANUFACTURER:

SANTOS SAS - 140-150, Av. Roger SALENGRO 69120 VAULX-EN-VELIN (LYON) FRANCE

HEREBY DECLARES THAT THE MACHINE DESIGNATED ON THE IDENTIFICATION PLATE AFFIXED:

- UNDER THE APPLIANCE,
- ON THE WARRANTY CERTIFICATE ON THE LAST PAGE OF THIS MANUAL,

COMPLIES WITH THE PROVISIONS OF THE "machines" DIRECTIVE n° 2006/42/CE AND THE NATIONAL LEGISLATION TRANSPOSING IT.
IT ALSO COMPLIES WITH THE PROVISIONS OF THE FOLLOWING EUROPEAN DIRECTIVES:

No. 2006/95/EC (Low voltage directive)
No. 2004/108/EC (CEM directive)
No. 2002/95/EC (RoHS directive)
No. 2002/96/EC (WEEE directive)

The machine complies with the provisions of the following harmonised European standards:

EN ISO 12100 -1 and 2: 2004 - Machine safety devices - General design principles
NF EN 60204-: 2006: Machine safety devices - Machine electrical equipment - General regulations
EN 60335-: 2002 - Safety of household and similar electrical appliances

SIGNED IN VAULX-EN-VELIN ON: **01/01/2010**

SIGNATORY'S TITLE: **CHIEF EXECUTIVE OFFICER**

SIGNATORY'S NAME: **Aurélien FOUQUET**

SIGNATURE

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IMPORTANT SAFEGUARDS

When using, cleaning or maintaining the machine, always follow these instructions:

Read all instructions

Note: You will find it easier to understand the next few paragraphs if you refer to the diagrams at the end of this manual.

IMPROPER USE

1. **Never operate the machine without coffee beans in the bean container.**
2. **Do not use this machine for grinding anything other than roasted coffee beans.**
3. **Remove from the coffee beans any foreign bodies which may damage the grindstones (metal staples, stones, etc.).**
4. **Cleaning in a jet of water or a high pressure spray is prohibited.**
5. **The base (11) must not be immersed in water.**

ELECTRICAL CONNECTION

- The electric power supply for the machine is available in 3 single-phase voltages:
  - 110-120 V 50/60 Hz:
  - 220-240 V 50 Hz:
  - 220-240 V 60 Hz:

Line protection: the machine should be connected to a standard 2-pole + earth electric socket. The system should be fitted with an RCD and a fuse rated at 16A. **The appliance must be earthed**.

CARE:

- Before connecting the machine, check that the mains electrical voltage is the same as the voltage for your appliance. Its value is shown:
  - ➢ either on the identification plate under the machine.
  - ➢ or on the identification plate on the last page of this manual.
- If the power cable is damaged, it should be replaced by a special assembly available from approved SANTOS dealers or from SANTOS.

CARE: **Check** that the On / Off switch (**13**) is in the **0 position** before connecting the power cable plug to your mains electric power socket (fig. A).

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RECYCLING THE PRODUCT AT THE END OF ITS SERVICE LIFE

This equipment is marked with the selective sorting symbol relating to wastes from electrical and electronic equipment. It signifies that this product should be taken over by a selective collection system conforming to the Guideline 2002/96/EC (WEEE) – part Professional Equipment – so that it can be either recycled or dismantled in order to reduce any impact on the environment.

For more information, please contact your Retailer or the SANTOS.

For eliminating or recycling components of equipment, please contact a specialized company or contact SANTOS.

The electronic products not undergoing a selective sorting are potentially dangerous for the environment.

The damaging materials should be eliminated or recycled according to the regulations in force.

YOUR COFFEE GRINDER # 1, # 1PS and # 4

- The coffee grinder is designed especially for hotels, restaurants, community catering, for the drawer version, and for coffee roasters.
- The robust frame of the appliance is made of cast aluminum and painted metal. The transparent hopper is made of transparent polycarbonate transparent and contains 1 kg beans.
    - o Model # 1 and # 1PS: The appliance is usually supplied with a grind-collector drawer (with a capacity of 800 g). But the bag- grip model can also be supplied on request (maximum bag depth of 150 mm)
    - o Model # 4: The appliance is delivered with a "bag grip" system as standard (maximum bag height: 280 mm),
- A button for adjusting the fineness of the grind caters for all types of coffee grind (fine grind, espresso, filter coffee, medium or coarse grind).
- The special hardened steel grinding wheels (Ø 63.5 mm) guarantee a fine and even grind.

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USING THE APPLIANCE

ADJUSTING THE GRIND

- Turn the grinding-wheel gap adjuster button 6 clockwise for a coarser grind and anticlockwise for a finer grind. The factory setting is for the finest grind, the grinding-wheels nearly touching each other.

SERVICING

- Clean the coffee outlet, the coffee-bean holder and the grinding mechanism from time to time. Always turn the appliance off (switch **13** on position 0) and unplug it.

MAINTENANCE

Before carrying out any work on the appliance, it must in all cases be unplugged from the mains power supply and the motor start capacitor discharged:

Discharging the capacitor:

Use a screwdriver with insulated handle to touch the 2 connectors on the capacitor (**13**). The appearance of an electric arc shows that the capacitor has discharged.

Spare parts:

This machine requires no specific maintenance. The bearings are lubricated for life.
If work is required to replace worn parts such as the grindstones or the electric or other components, refer to the parts list (see exploded view at the end of the manual).

IMPORTANT: It is prohibited to use spare parts other than those certified made by SANTOS

For **all spare part orders** (see references in the exploded view at the end of the manual), state:

- **the type,**
- **the machine serial number and**
- **the electrical specifications** ()

recorded under the machine.

Replacing the grindstones:

IMPORTANT: always change both 2 grindstones (17) at the same time. (use SANTOS reference 00001B)

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The 2 grinding wheels are identical and can be fitted equally either on the moving plate **(18)** (moving grinding wheel) or on the cast metal adjustment block **(19)** (fixed grinding wheel).

1. Stop the machine by putting the switch **(13)** to "0" and disconnect the power supply cord.
2. Close the shutter **(3)** on the bean hopper **(2)**. Take off the bean hopper **(2)**.
3. Turn the grinding wheel gap adjuster button **(6)** clockwise until it comes to a halt at the "**COARSE**" setting."
4. Unscrew the nuts **(16)** and remove the whole grinding unit **(15)**, to gain access to the grinding wheels.
5. Change the grinding wheels (3 fastening screws) after carefully cleaning the supporting surfaces.
   TAKE CARE: *The slightest small coffee particle under the grinding wheel may prevent the machine from operating correctly. It is recommended that the grinder body is cleaned with a compressed air jet or a dry brush.*
6. Reassemble the grinding unit **(15)** and adjust the grinding gap to its minimum setting.

TAKE CARE

- Before tightening the fastening nuts **(16)** on the grinding unit **(15)**, check that the dial **(4)** of the grinding wheel adjuster button **(6)** is set to "**COARSE**"" This precaution is essential to prevent any risk of the grinding wheels being brought too close to each other, which could cause damage to the grinding unit.

ADJUSTING THE MINIMUM GAP BETWEEN THE GRINDING-WHEELS

This should be done after replacing the grinding wheels.

1. Plug the appliance in and run it empty.
2. Unscrew hexagon socket screw **(7)** on the dial **(4)** using a 2-mm Allen wrench. Check that the dial **(4)** is free to rotate without turning button **(6)**.
3. Turn button **(6)** anticlockwise until the grinding wheels come into contact (a slight sound of friction will be heard) then back one notch in the reverse direction.

ATTENTION
This is a delicate operation, and prolonged contact between the grinding wheels should be avoided, since this could damage them.

4. Turn the appliance off by placing switch **(13)** on **"0"**.
5. Without moving the button **(6),** place the dial **(4)** on the **"FINE"** position then tighten the hexagon socket screw **(7)** fully home**.**

6. Run the machine empty to check that the grinding wheels rotate without touching each other on the finest setting. If this is not the case, repeat the above procedure.

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FAULT FINDING

Identify the exact reason the appliance stopped.

In every case: If the problem persists, switch off the power supply to the machine (unplug the cord from the mains socket) and call in the maintenance service or contact a SANTOS approved dealer.

The machine will not start:

- Check: the mains power supply and the condition of the power supply cord,
- Note: the switch should be lit when on the "1" position.
- Check that there are no foreign bodies stuck between the grinding wheels.

The machine stops because the motor has overheated:

(the metal casing around the motor unit is hot)

Models110-120V 50/60Hz only

In the event of overheating, the motor stops.
The overheating protection system resets automatically; wait for the motor to cool (15 to 30 minutes), before restarting the machine.

The machine stops because of an overload:

If the motor is blocked (foreign body, something too hard), the excess current protection system **(14)**, located under the appliance will be triggered automatically and cut off the electrical power to the motor.

- Set the On / Off switch **(13)** to **"0"** position, disconnect the appliance.
- Correct the fault then press the excess current protection button **(14)**
- Press the On/Off switch **(13)** (position I).

If the problem persists, check the following points:

- Check that the grinding wheels do not touch each other.
- Check the state of wear of the grinding wheels (grinding too fine with worn grinding wheels can result in a motor overload like this)
- If there are no foreign bodies preventing the appliance from working, then check and replace the motor starter relay then the capacitor.

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MACHINE TECHNICAL SPECIFICATIONS

ELECTRICAL SPECIFICATIONS (1)			
Model		**# 1, # 1PS**	**# 4**
Supply voltage	.(V)	220-240	100-120 220-240
Frequency	(Hz)	50	50/60 60
Motor:			
Power input	(W)	600	650 650
Speed	(rpm)	1500	1500/1800 1800
Average capacity	(kg/h)	14	14
Hopper capacity	(kg)	1	1
Grind drawer capacity	(kg)	0.800	
Maximum bag height	(mm)	150	280
Dimensions: Height	(mm)	550	700
Width	(mm)	250	220
Depth	(mm)	320	320
Weight: Net weight	(kg)	15	19
Packaged weight	(kg)	16	20,4
Noise : (2) L_{pA} incertitude K_{pA} = 2.5dB	(dBA)	74	74

(1) These ratings are provided as a rough guide. The exact electrical specifications can be found on the rating plate.

(2) Noise level measured with sound pressure appliance in operation 1 m from its centerline in accordance with standard EN 31201.

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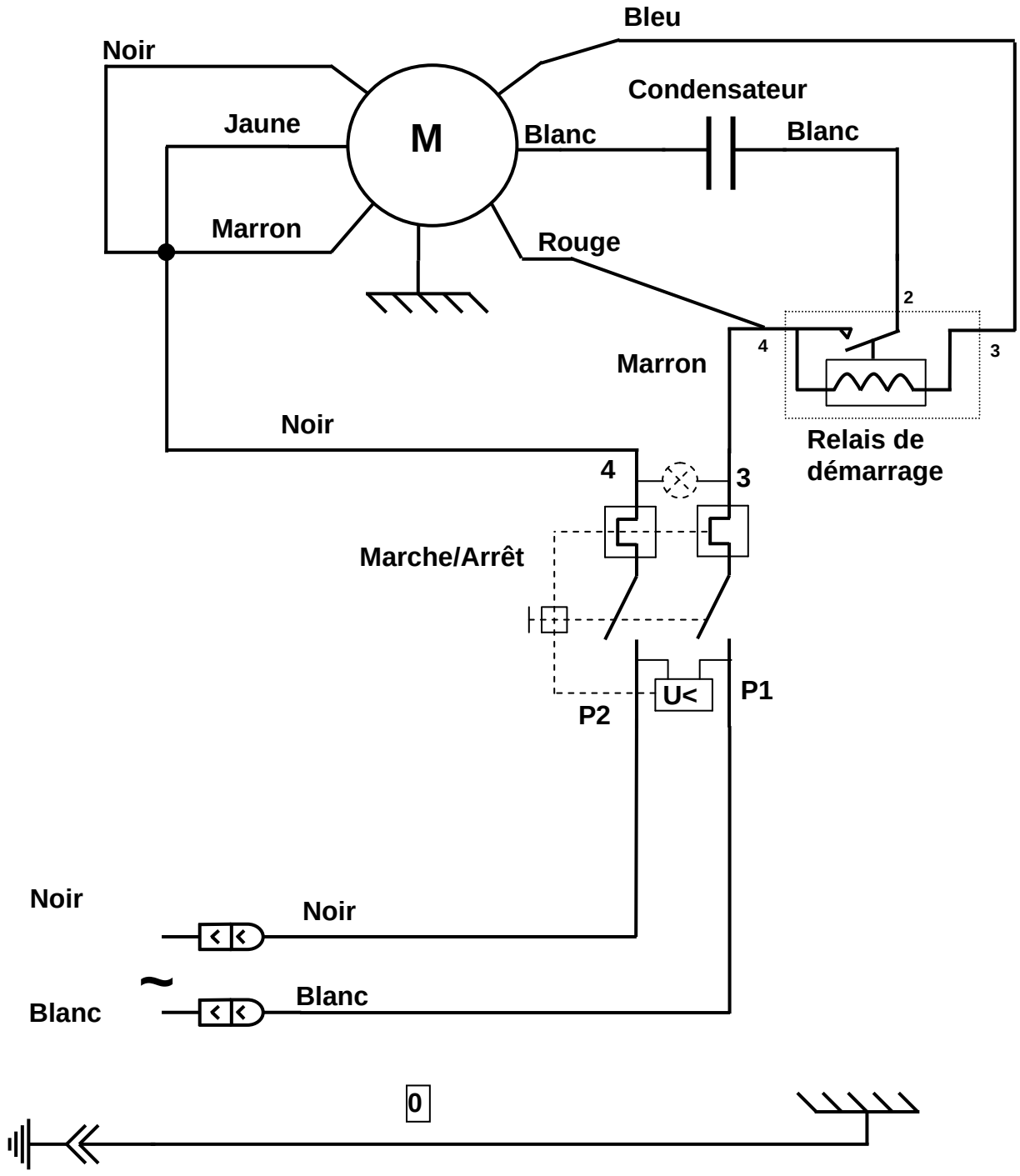
Wiring diagram 110-120V 50/60Hz Model #1, 1PS



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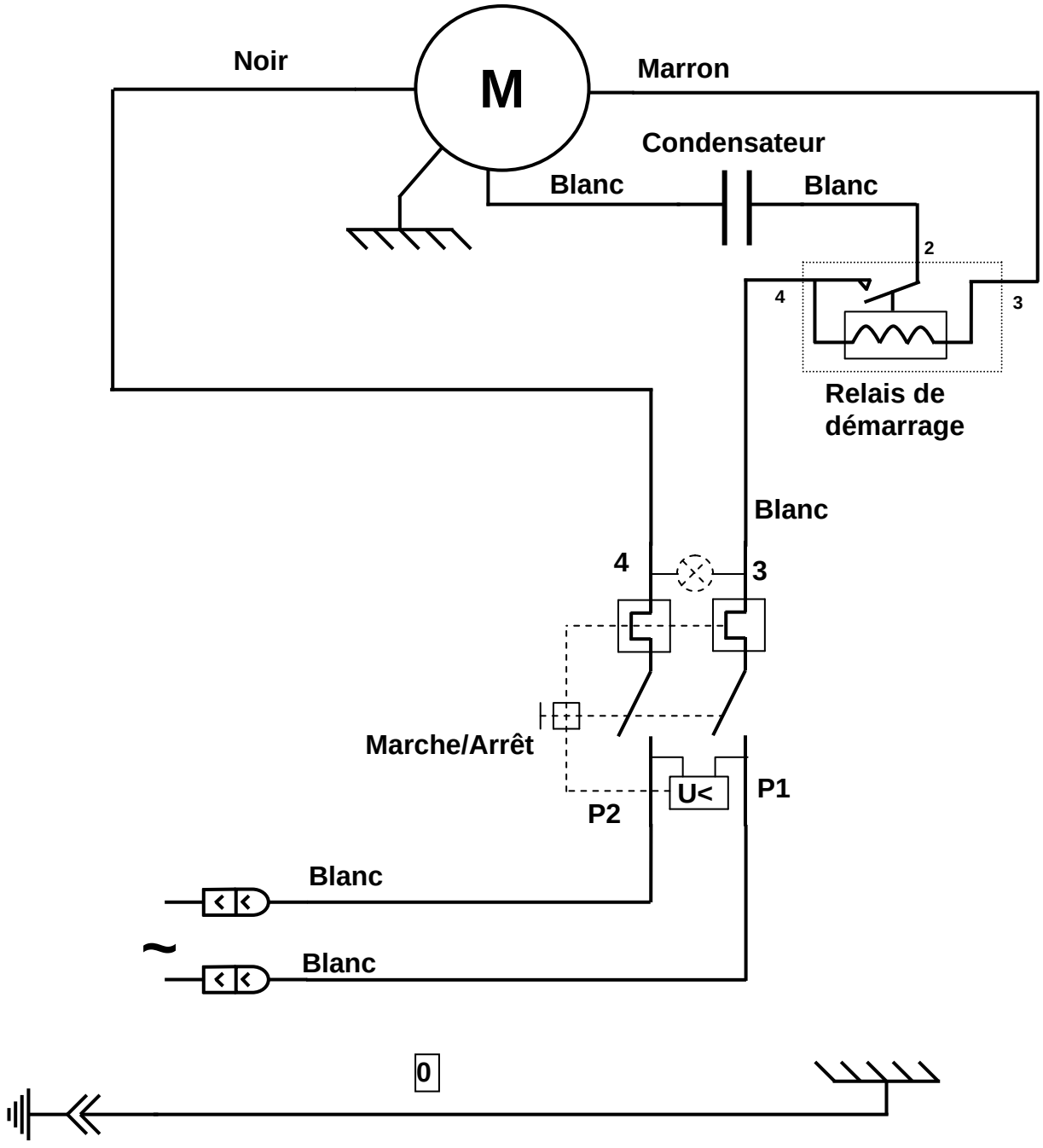
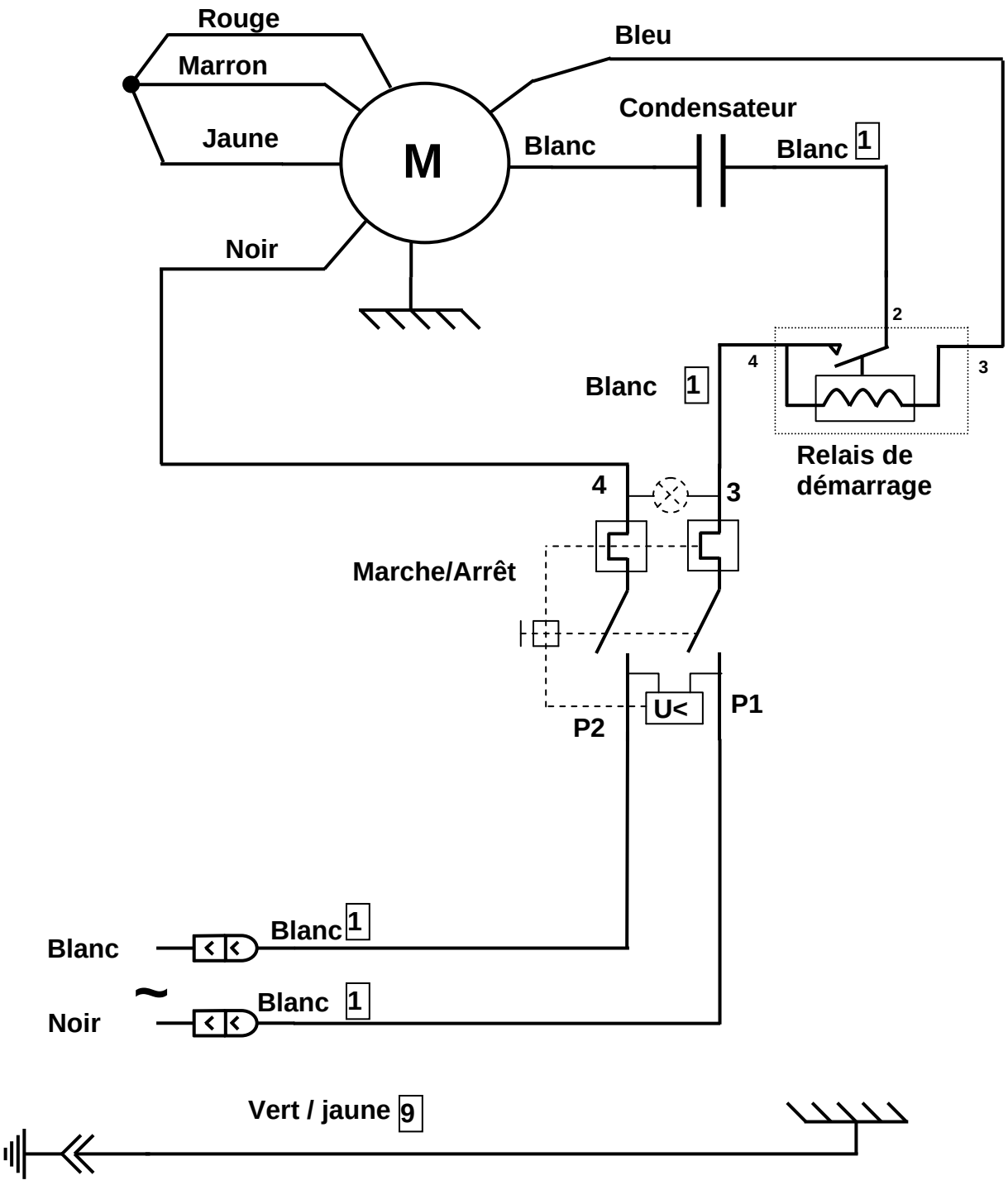
Wiring diagram 220-240V 50Hz Model #1, 1PS



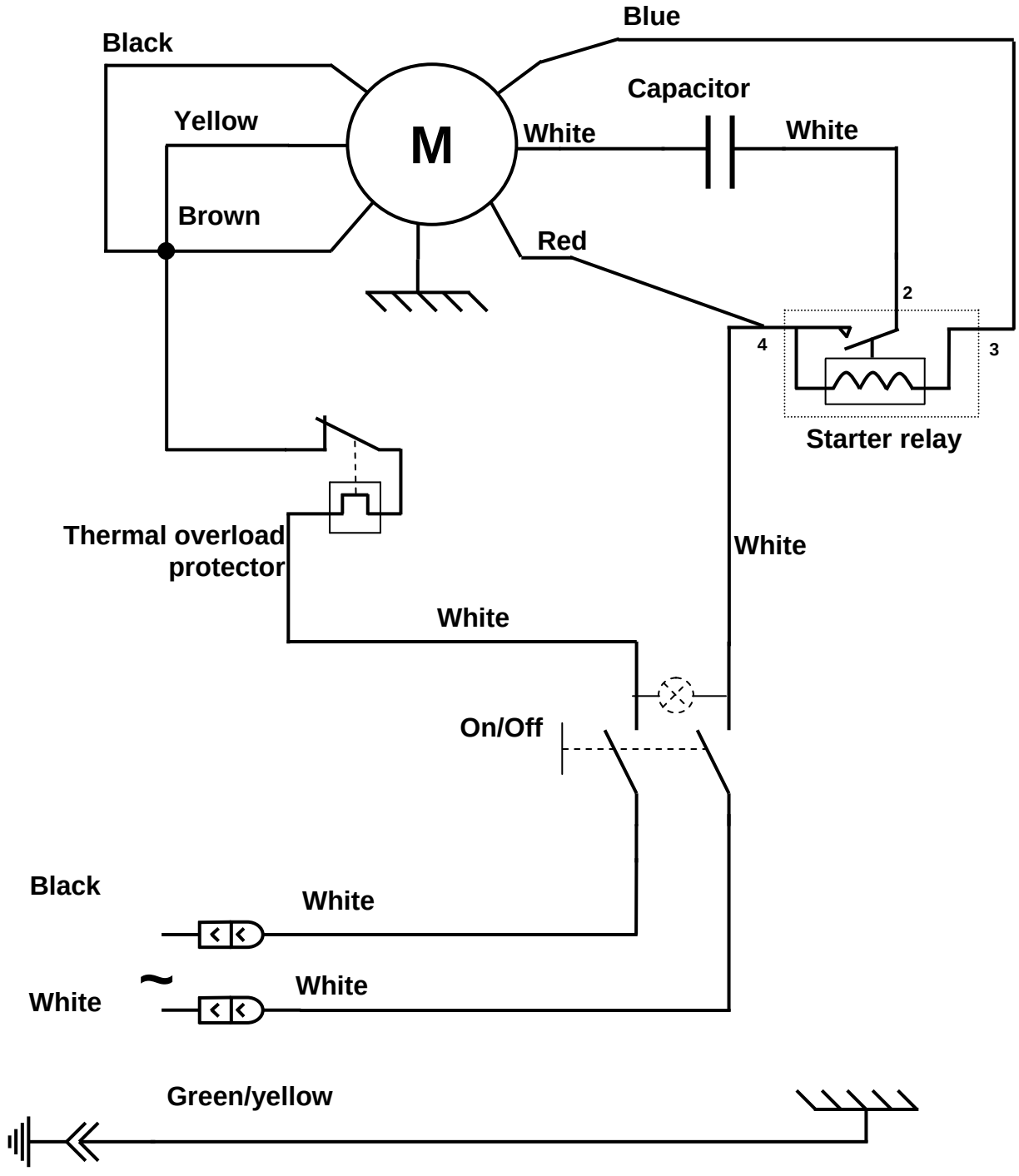
ENG

Wiring diagram 220-240V 60Hz Model #1, 1PS



ENG

Wiring diagram 100-120V 50/60Hz Model #4



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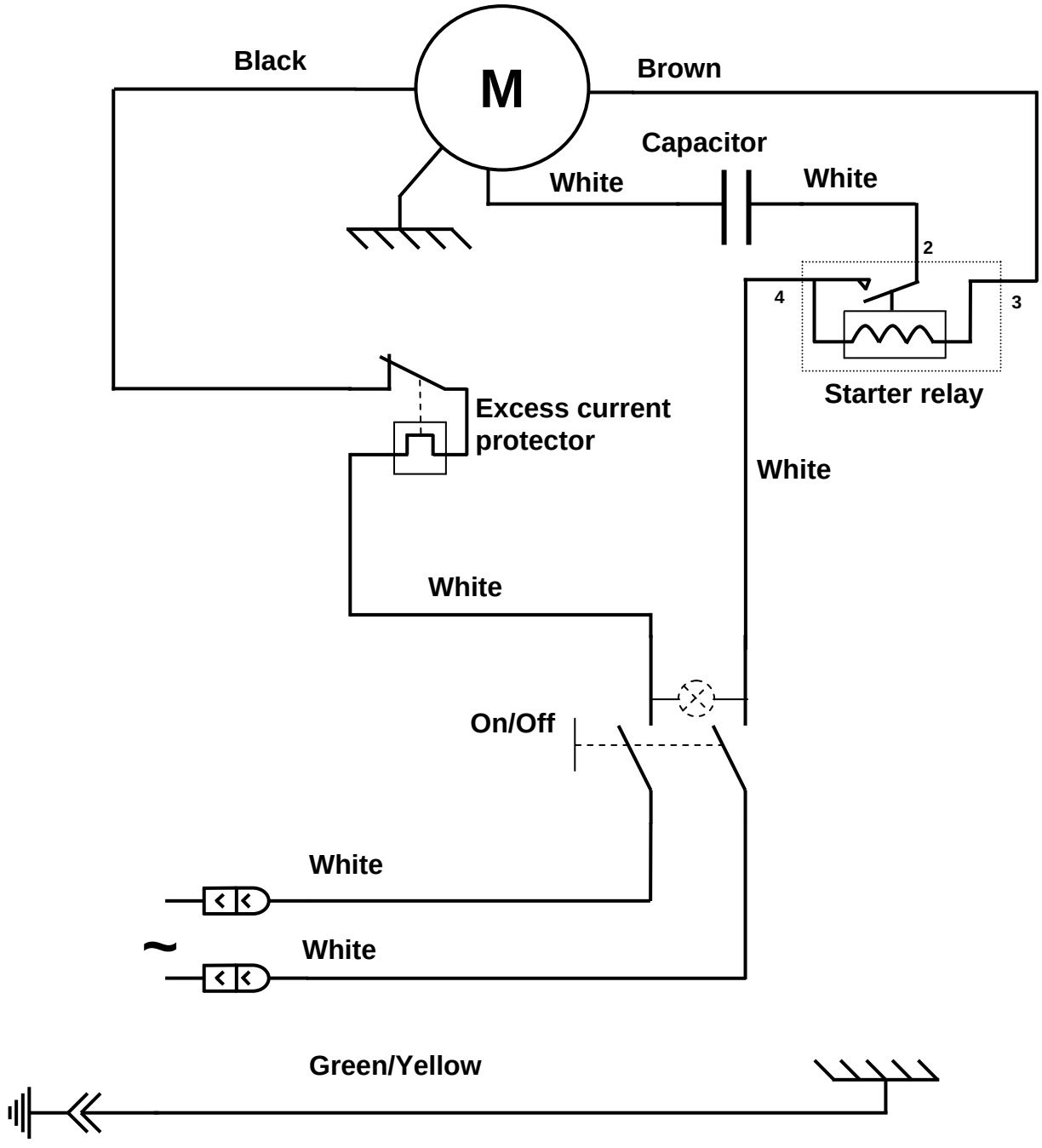
Wiring diagram 220-240V 50Hz Model #4



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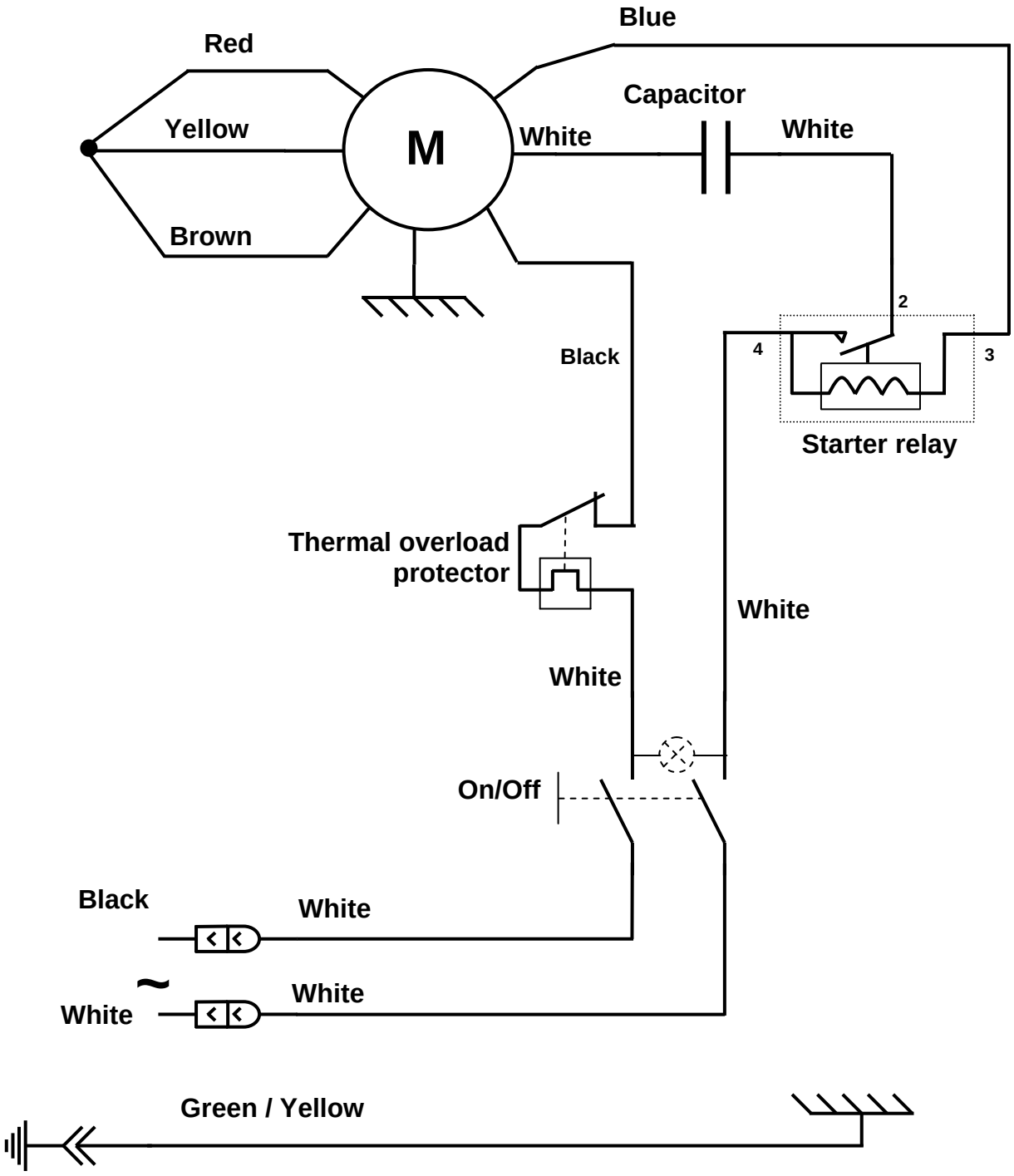
Wiring diagram 220-240V 60Hz Model #4



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Figures

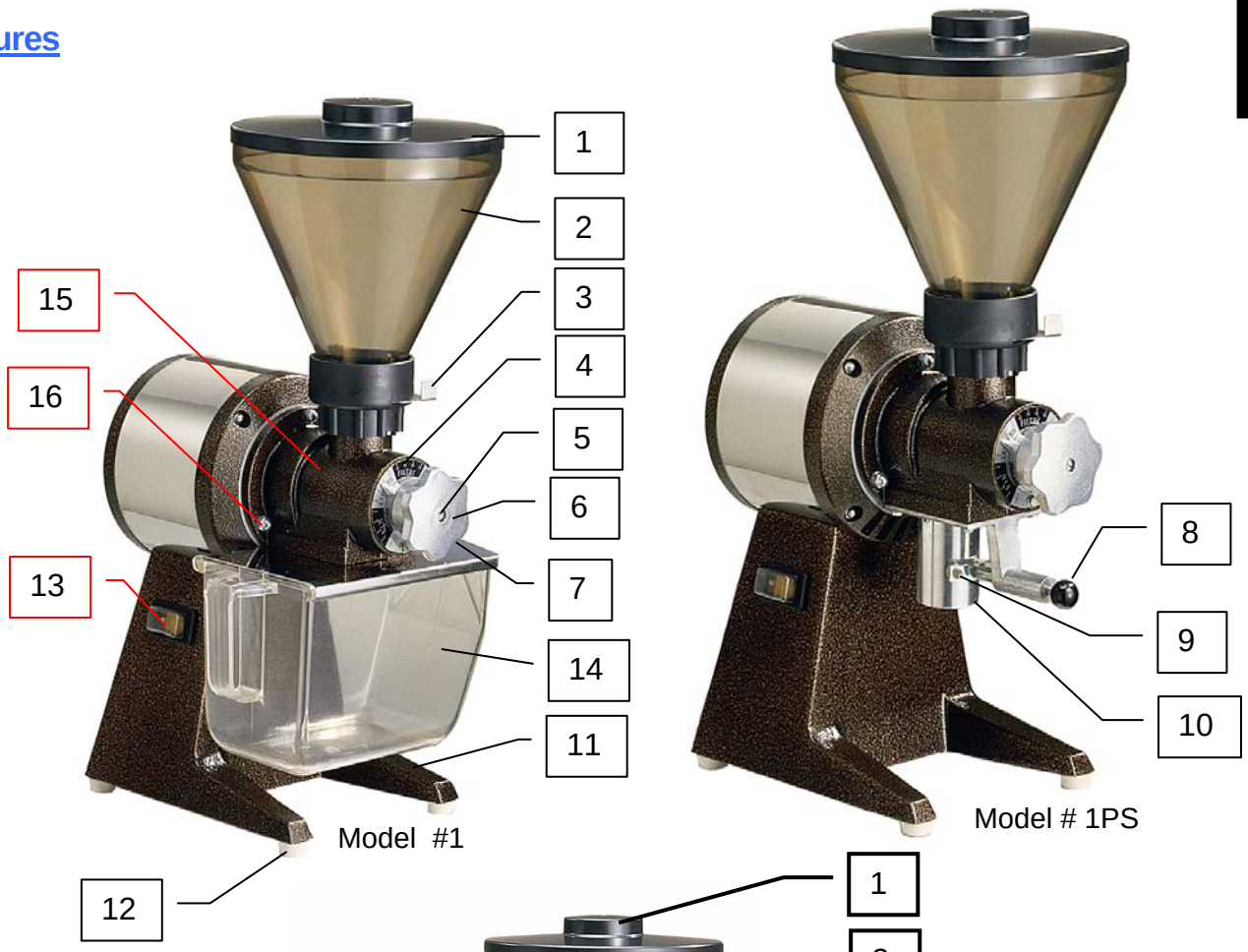
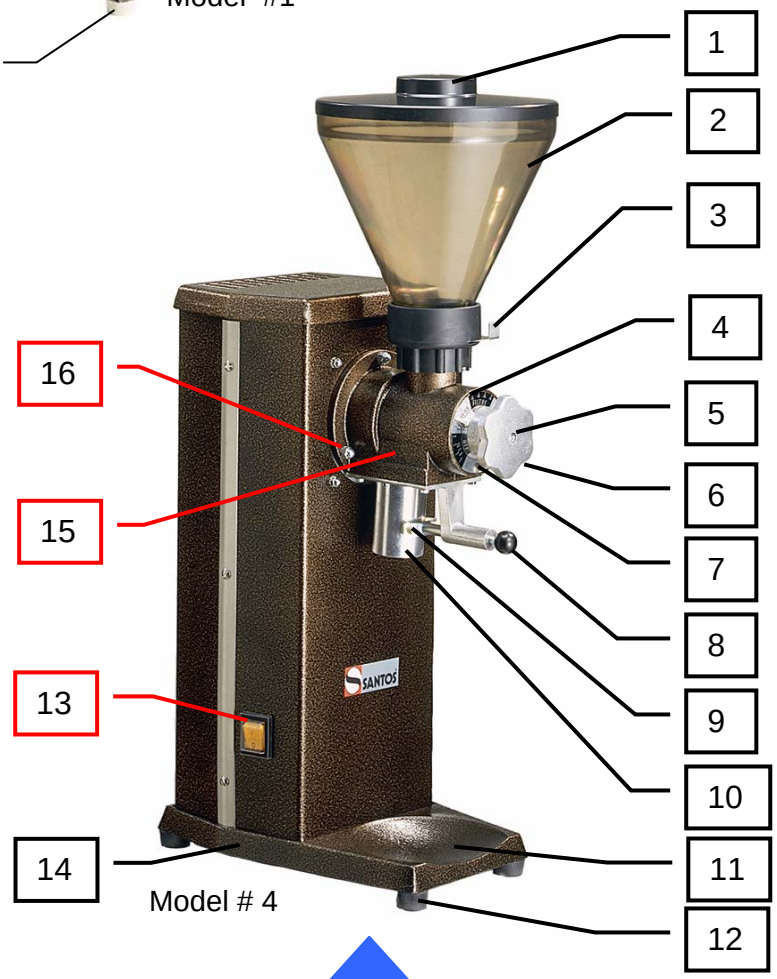


FIGURE A



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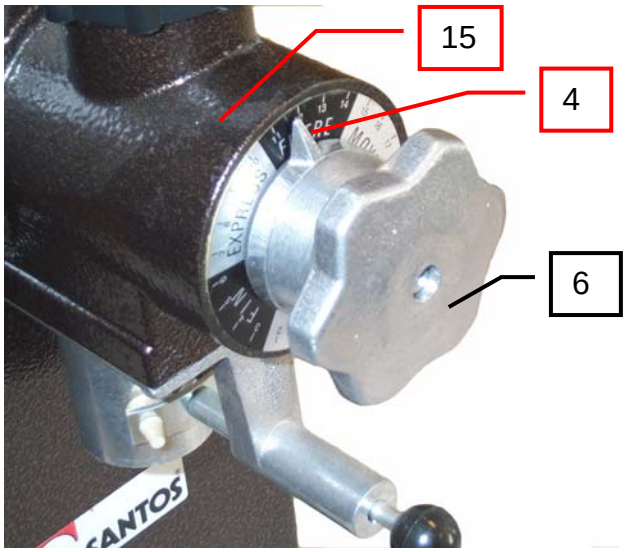

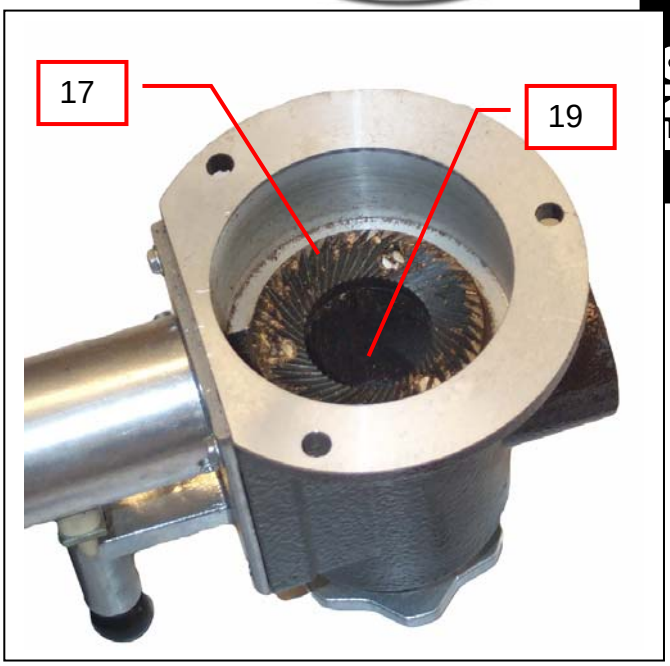

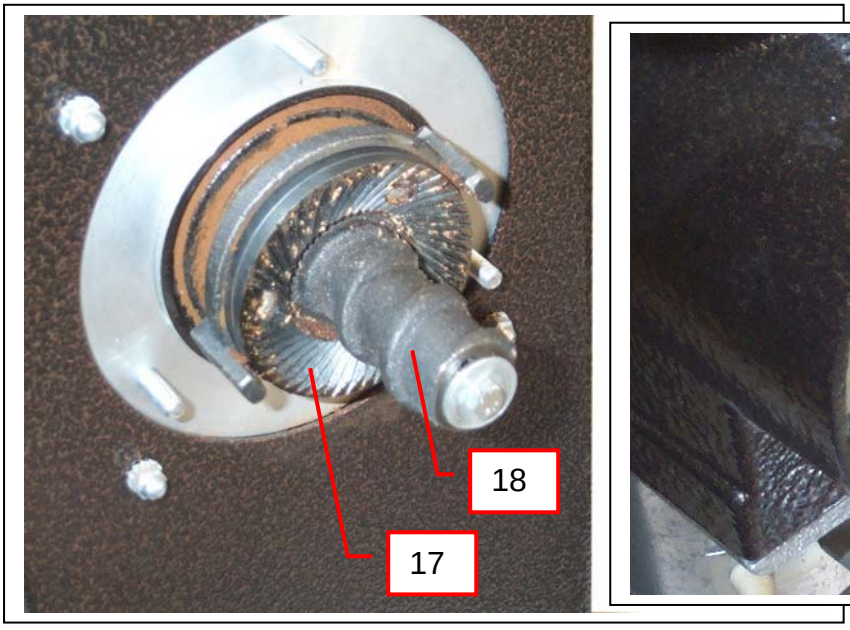

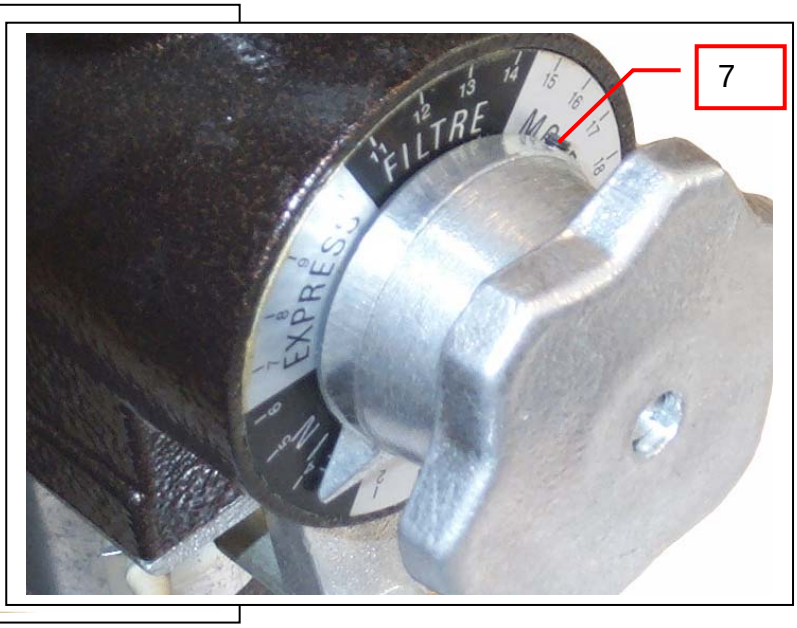

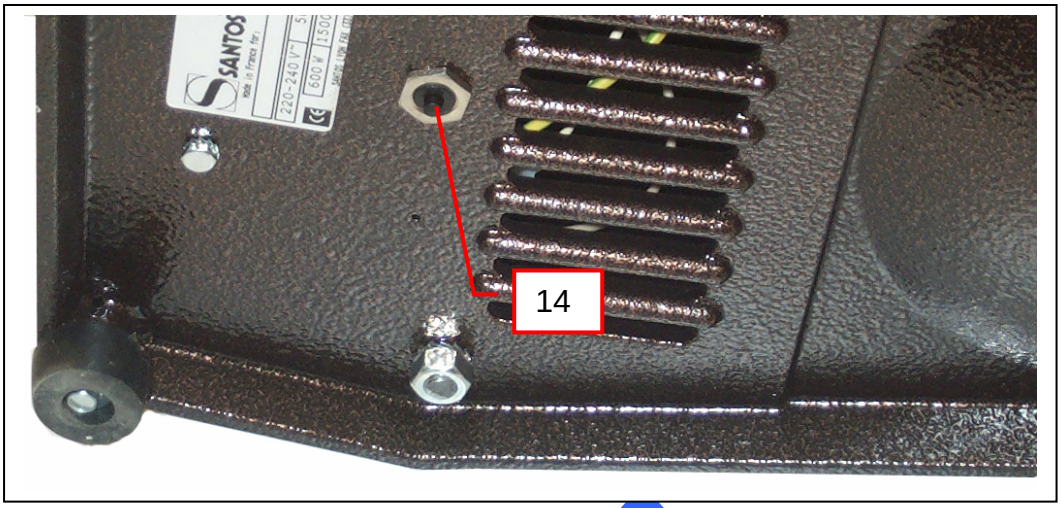

ITEM	Description
1	Bean hopper cover
2	Bean hopper
3	Bean hopper shutter
4	Adjusting dial
5	Adjuster button attachment
6	Grinding wheel gap adjuster button
7	Dial fastening screw
8	Bag grip cord
9	Bag grip strap
10	Grind outlet tube
11	Base
12	Non-slip feet
13	On-off switch
14	Thermal overload switch, with reset
15	Grinding unit
16	Grinding unit clamp nut
17	Grinding wheels
18	Mobile grind wheel carrier plate
19	Fixed grind wheel carrier plate

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WARRANTY CERTIFICATE

WARRANTY

This appliance is guaranteed for twelve months from the date of manufacture appearing on the identification plate.
The guarantee is strictly limited to the free replacement of any original part acknowledged by us as being defective as a result of a fault or a manufacturing defect and identified as belonging to the appliance in question.
It does nor apply to damage resulting from an installation or use which does not comply with the instructions supplied with each appliance (user manual) or in the event of an obvious lack of maintenance or non-observance of basic electrical safety rules.
All part replacements under warranty are made after return of the defective part to our workshops carriage paid, accompanied by a copy of this warranty certificate on which the serial number of the appliance is shown.
All appliances have an identification plate bearing a serial number identical to that on this warranty certificate.
In the event of serious damage which is deemed only to be repairable in our workshops, and after agreement from our services, all appliances under warranty are to be dispatched by the client carriage paid. If the appliance is repaired outside the warranty, the forwarding and return transport is the responsibility of the client. Parts and labour are invoiced at the prices in force (spare parts price - hourly labour cost). All repairs will be subject to a prior estimate which should be agreed before repair.
In the event of a dispute, the Courts for the manufacturer's area (Lyon) alone have jurisdiction.

APPLIANCE IDENTIFICATION PLATE

SPECIMEN
For all documents not supplied with the appliance.

Printed, Faxed and Downloaded